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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 09/985,675 | 11/05/2001 | Philip S. Crosier | 3911-11 | 4087 |

7590 03/08/2004

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| EXAMINER | |
|---|---|
| MURPHY, JOSEPH F | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 1646 | |

DATE MAILED: 03/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/985,675 | CROSIER ET AL. | |
| | Examiner | Art Unit | |
| | Joseph F Murphy | 1646 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *05 November 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-68* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-68* are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Election/Restrictions*

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-2, 6, 11, 12 drawn to a receptor tyrosine kinase of SEQ ID NO: 1, classified in class 530, subclass 350.

II. Claims 1, 3, 6, 7, 11, 12 drawn to a receptor tyrosine kinase of SEQ ID NO: 2, classified in class 530, subclass 350.

III. Claims 1, 4, 6, 11, 12 drawn to a receptor tyrosine kinase of SEQ ID NO: 3, classified in class 530, subclass 350.

IV. Claims 1, 5, 6, 9, 11, 12 drawn to a receptor tyrosine kinase of SEQ ID NO: 4, classified in class 530, subclass 350.

V. Claim 8 drawn to an extracellular domain with the amino acid sequence of SEQ ID NO: 5, classified in class 530, subclass 300.

VI. Claim 10, drawn to an extracellular domain with the amino acid sequence of SEQ ID NO: 6, classified in class 530, subclass 300.

VII. Claims 13, 14, 15, 33-34, 38, 40 drawn to a nucleic acid molecule encoding SEQ ID NO: 1, classified in class 435, subclass 69.1.

VIII. Claim 16, drawn to a nucleic acid molecule of SEQ ID NO: 7, classified in class 536, subclass 23.5.

IX. Claims 17-18, drawn to a nucleic acid molecule encoding SEQ ID NO: 2, classified in class 435, subclass 69.1.

X. Claim 19, drawn to a nucleic acid molecule with the sequence of SEQ ID NO: 8, classified in class 536, subclass 23.5.

XI. Claims 20-21, 35, drawn to a nucleic acid molecule encoding SEQ ID NO: 3, classified in class 435, subclass 69.1.

XII. Claim 22, drawn to a nucleic acid molecule of SEQ ID NO: 9, classified in class 536, subclass 23.5.

XIII. Claims 23-24, drawn to a nucleic acid molecule encoding SEQ ID NO: 4, classified in class 435, subclass 69.1.

XIV. Claim 25, drawn to a nucleic acid molecule of SEQ ID NO: 10, classified in class 536, subclass 23.5.

XV. Claim 26, drawn to a nucleic acid molecule encoding the extracellular region of SEQ ID NO: 1, classified in class 435, subclass 69.1.

XVI. Claims 27-28-29, 36, 39, 41 drawn to a nucleic acid molecule encoding the extracellular region of SEQ ID NO: 2, of SEQ ID NO: 11, classified in class 435, subclass 69.1.

XVII. Claims 30-32, 37 drawn to a nucleic acid molecule encoding the extracellular region of SEQ ID NO: 4, of SEQ ID NO: 12, classified in class 435, subclass 69.1.

XVIII. Claims 42-57, drawn to a ligand that binds a receptor tyrosine kinase, classified in, for example, class 530, subclass 387.1.

XIX. Claims 58-60, drawn to a method of stimulation proliferation of cells, classified in class 435, subclass 375.

XX. Claims 61-63, drawn to a method of inhibiting a receptor tyrosine kinase, classified in class 435, subclass 7.2.

XXI. Claims 64-65, drawn to a method of treating a disease with a ligand, classified in class 514, subclass 2.

XXII. Claims 66-67, drawn to a method of extracting a ligand, classified in class 435, subclass 183.

The inventions are distinct, each from the other because of the following reasons:

Inventions I-XVIII are independent and distinct, each from the other, because they are products which possess characteristic differences in structure and function, and each has an independent use, that is distinct for each invention which cannot be exchanged. Nucleic acids, proteins and ligands are distinct because their structures and modes of action are different, which require non-coextensive searches.

The nucleic acids of Inventions VII-XVII are independent and distinct, each from the other, because they are products which possess characteristic differences in structure and function, and each has an independent use, that is distinct for each invention which cannot be exchanged. In the instant case the nucleic acids have characteristic differences in their structure, as evidenced by the differing nucleic acid sequences.

The proteins of Inventions I-VI are independent and distinct, each from the other, because they are products which possess characteristic differences in structure and function, and each has an independent use, that is distinct for each invention which cannot be exchanged. In the instant case the proteins have characteristic differences in their structure, as evidenced by the differing amino acid sequences.

Invention XVIII is related as a product to the process of using in Inventions XIX, XX and XXI. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the ligand can be used in a method of isolation of the protein.

Inventions XXII and XVIII are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the ligand can be synthesized through chemical means.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined in accordance with the provisions of MPEP § 821.04. Process claims that depend from or otherwise include all the limitations of the patentable product will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103, and 112. Until an elected product claim is found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowed product claim will not be rejoined. See "Guidance on Treatment of Product and Process Claims in light of In re Ochiai, In re Brouwer and 35 U.S.C. § 103(b)," 1184 O.G. 86 (March 26, 1996). Additionally, in order to retain the right to rejoinder in accordance with the above policy, Applicant is advised that the process claims should be amended during prosecution either to maintain dependency on the product claims or to otherwise include the limitations of the product claims. Failure to do so may result in a loss of the right to rejoinder.

Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

***Advisory Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Murphy whose telephone number is (571) 272-0877. The examiner can normally be reached Monday through Friday from 7:30 am to 5:00 pm. A message may be left on the examiner's voice mail service. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yvonne Eyler can be reached on (571) 272-0871.

The fax number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Joseph F. Murphy, Ph. D.
Patent Examiner
Art Unit 1646
March 4, 2004